

Texas Water Development Board



WATER Conditions

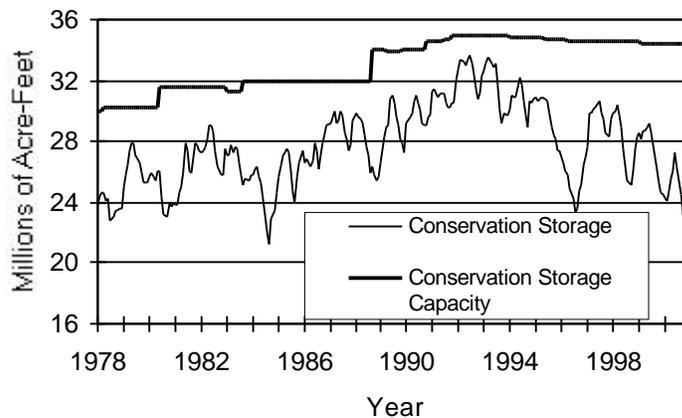
RESERVOIR STORAGE

December 2000

Near the end of December, the 77 reservoirs monitored for this report held 27.5 million acre-feet in conservation storage, or 79.8 percent of the conservation storage capacity of the State's major reservoirs. This represents the eighth-lowest percentage of capacity for the end of December recorded in 23 years. Storage increased by 0.80 million acre-feet (+2.3% of conservation storage capacity) during the month. Compared to December 1999, storage is up 3.0 million acre-feet (+8.8%). Statewide storage was on the rise at the end of the month

Storage remained nearly constant or increased slightly in all climatic regions except the High Plains, where storage decreased by 1.0%. The North Central, East, South Central, and Upper Coast regions remained above 88% capacity, while the Low Rolling Plains, Trans-Pecos, and Southern regions were all below 35%. Storage is at 100% in 27 reservoirs, 5 more than last month. Compared to conditions this time last year, storage has increased in all except the High Plains, Trans-Pecos, and Southern regions.

CONSERVATION STORAGE DATA FOR SELECTED MAJOR TEXAS RESERVOIRS



Current data are based on elevation near end of month at 77 reservoirs that represent 98 percent of total conservation storage capacity in Texas reservoirs having a capacity of 5,000 acre-feet or more.

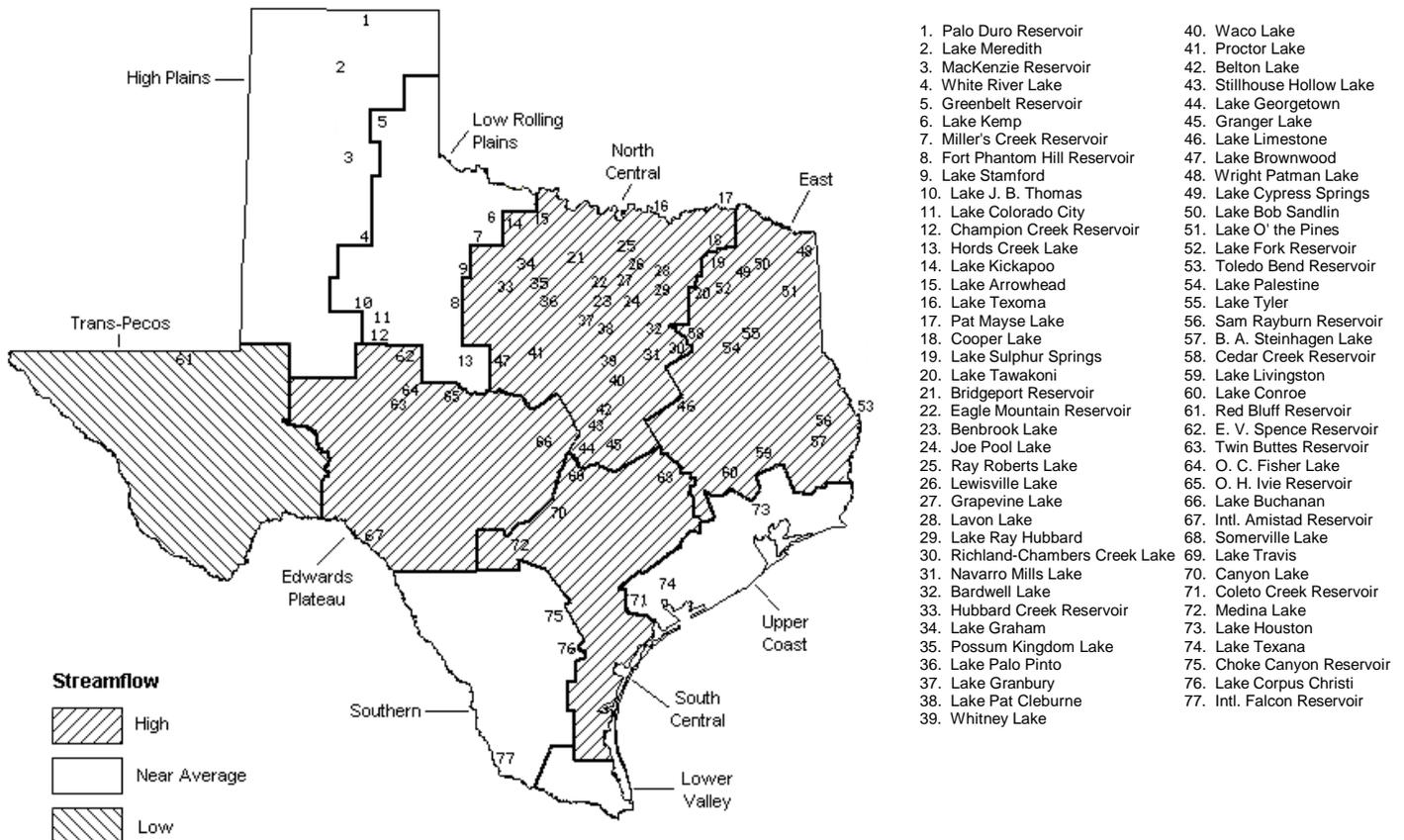
STREAMFLOW

Of 29 reporting index stations in December, computed 30-day mean flows were high (5% - 30% exceedance) at 12 stations, near normal (30% - 70% exceedance) at 13 stations, low (70% - 95% exceedance) at 3 stations, and very low (95% - 100% exceedance) at 1 station. In comparison to November, flows increased at 7 index stations and decreased at 22.

On a regional basis, flows in December were high in the North Central, East, Edwards Plateau, and South Central regions, near normal in the High Plains, Low Rolling Plains, Upper Coast, and Southern regions, and low in the Trans-Pecos region. The single station reporting very low flows was the Canadian River near Amarillo.

DECEMBER STREAMFLOW CONDITIONS

Reservoirs Shown on Map



CONSERVATION STORAGE DATA FOR SELECTED MAJOR TEXAS RESERVOIRS

Name of Lake or Reservoir	No. on Map	Conservation Storage Capacity (acre-feet)	Conservation Storage Late December 2000 (acre-feet)		Change since Late November 2000 (acre-feet) (%)		Change since Late December 1999 (acre-feet) (%)		
HIGH PLAINS									
Palo Duro Reservoir	1	60,900	13,280	22	-1,030	-2	-5,428	-9	
Lake Meredith (Texas)	2	500,000	336,300	67	-4,900	-1	-50,700	-10	
Lake Meredith (Texas and Oklahoma)	(2)	779,560	336,300	43	-4,900	-1	-50,700	-7	
MacKenzie Reservoir	3	46,250	8,030	17	-80	0	-1,790	-4	
White River Lake	4	31,850	11,710	37	-250	-1	-5,030	-16	
TOTAL		639,000	369,320	58	-6,260	-1	-62,948	-10	
LOW ROLLING PLAINS									
Greenbelt Reservoir	5	58,200	23,210	40	50	0	-2,230	-4	
Lake Kemp	6	319,600	140,200	44	1,400	0	-10,900	-3	
Miller's Creek Reservoir	7	27,890	11,950	43	3,690	13	1,080	4	
Fort Phantom Hill Reservoir	8	70,030	39,160	56	-1,780	-3	18,700	27	
Lake Stamford	9	52,700	8,840	17	-270	-1	-2,970	-6	
Lake J. B. Thomas	10	202,300	27,170	13	-1,500	-1	-2,620	-1	
Lake Colorado City	11	30,800	21,000	68	-440	-1	6,580	21	
Champion Creek Reservoir	12	41,600	4,390	11	-40	0	-660	-2	
Hords Creek Lake	13	8,600	4,140	48	-120	-1	741	9	
TOTAL		811,720	280,060	35	990	0	6,021	1	
NORTH CENTRAL									
Lake Kickapoo	14	106,000	58,280	55	410	0	5,265	5	
Lake Arrowhead	15	262,100	114,400	44	-800	0	-18,500	-7	
Lake Texoma	16	2,722,300	2,722,300	100	0	0	409,224	15	
Pat Mayse Lake	17	124,500	124,500	100	0	0	13,423	11	
Cooper Lake	18	273,000	273,000	100	0	0	47,655	17	
Lake Sulphur Springs	19	17,710	17,710	100	0	0	3,697	21	
Lake Tawakoni	20	936,200	936,200	100	0	0	176,700	19	
Bridgeport Reservoir	21	374,830	199,700	53	6,800	2	-17,039	-5	
Eagle Mountain Reservoir	22	178,380	113,400	64	900	1	-24,245	-14	
Benbrook Lake	23	88,200	61,260	69	8,060	9	-3,754	-4	
Joe Pool Lake	24	175,800	175,100	100	7,700	4	17,622	10	
Ray Roberts Lake	25	798,760	551,100	69	53,900	7	-44,667	-6	
Lewisville Lake	26	555,000	442,900	80	64,900	12	117,695	21	
Grapevine Lake	27	187,700	150,000	80	17,900	10	19,269	10	
Lavon Lake	28	443,800	443,800	100	69,700	16	140,036	32	
Lake Ray Hubbard	29	413,420	413,420	100	35,720	9	0	0	
Richland-Chambers Creek Lake	30	1,103,820	1,103,820	100	0	0	149,926	14	
Navarro Mills Lake	31	55,810	55,810	100	0	0	15,392	28	
Bardwell Lake	32	53,580	53,580	100	4,200	8	15,948	30	
Hubbard Creek Reservoir	33	317,800	140,600	44	-1,800	-1	-63,800	-20	
Lake Graham	34	45,000	36,960	82	-90	0	-2,820	-6	
Possum Kingdom Lake	35	551,820	478,900	87	800	0	52,000	9	
Lake Palo Pinto	36	27,650	9,980	36	-690	-2	-19,911	-72	
Lake Granbury	37	135,680	131,900	97	3,800	3	11,200	8	
Lake Pat Cleburne	38	25,300	22,740	90	1,420	6	6,032	24	
Whitney Lake	39	622,800	487,400	78	-10,800	-2	59,800	10	
Waco Lake	40	144,500	144,500	100	0	0	36,166	25	
Proctor Lake	41	55,590	19,030	34	-410	-1	-2,072	-4	
Belton Lake	42	434,500	434,500	100	0	0	58,325	13	
Stillhouse Hollow Lake	43	226,060	226,060	100	0	0	13,453	6	
Lake Georgetown	44	37,010	25,590	69	3,660	10	-443	-1	
Granger Lake	45	54,280	54,280	100	0	0	4,675	9	
Lake Limestone	46	215,750	215,750	100	0	0	41,950	19	
Lake Brownwood	47	143,400	108,100	75	-1,500	-1	23,580	16	
TOTAL		11,908,050	10,546,570	89	263,780	2	1,241,782	10	

CONSERVATION STORAGE DATA FOR SELECTED MAJOR TEXAS RESERVOIRS

Name of Lake or Reservoir	No. on Map	Conservation Storage Capacity (acre-feet)	Conservation Storage		Change since Late November 2000		Change since Late December 1999		
			Late December 2000 (acre-feet)	(%)	(acre-feet)	(%)	(acre-feet)	(%)	
EAST									
Wright Patman Lake	48	142,700	142,700	100	0	0	0	0	
Lake Cypress Springs	49	66,800	66,800	100	0	0	4,760	7	
Lake Bob Sandlin	50	202,300	202,300	100	0	0	18,400	9	
Lake O' the Pines	51	252,000	252,000	100	0	0	21,062	8	
Lake Fork Reservoir	52	635,200	635,200	100	0	0	44,100	7	
Toledo Bend Reservoir	53	4,472,900	4,072,000	91	129,000	3	582,000	13	
Lake Palestine	54	411,300	411,300	100	0	0	59,100	14	
Lake Tyler	55	73,700	73,700	100	13,000	18	1,772	2	
Sam Rayburn Reservoir	56	2,876,300	2,412,000	84	262,000	9	471,000	16	
B. A. Steinhagen Lake	57	94,200	79,650	85	-580	-1	8,003	8	
Cedar Creek Reservoir	58	637,050	637,050	100	49,150	8	74,718	12	
Lake Livingston	59	1,750,000	1,750,000	100	0	0	0	0	
Lake Conroe	60	429,900	418,500	97	500	0	42,900	10	
TOTAL		12,044,350	11,153,200	93	453,070	4	1,327,815	11	
TRANS-PECOS									
Red Bluff Reservoir	61	307,000	65,110	21	990	0	-21,630	-7	
TOTAL		307,000	65,110	21	990	0	-21,630	-7	
EDWARDS PLATEAU									
E. V. Spence Reservoir	62	488,760	85,340	17	-1,870	0	26,950	6	
Twin Buttes Reservoir	63	177,800	7,860	4	-270	0	1,369	1	
O.C. Fisher Lake	64	119,200	10,060	8	-240	0	2,040	2	
O. H. Ivie Reservoir	65	554,340	318,900	58	-3,300	-1	-4,100	-1	
Lake Buchanan	66	896,980	737,100	82	6,100	1	125,225	14	
Amistad Reservoir (Texas)	67	1,771,030	1,085,000	61	51,000	3	45,000	3	
Amistad Reservoir (Texas and Mexico)	(67)	3,151,300	1,246,000	40	51,000	2	-140,000	-4	
TOTAL		4,008,110	2,244,260	56	51,420	1	196,484	5	
SOUTH CENTRAL									
Somerville Lake	68	155,060	155,060	100	13,760	9	15,094	10	
Lake Travis	69	1,144,100	1,144,100	100	0	0	318,269	28	
Canyon Lake	70	385,600	383,900	100	-1,700	0	27,127	7	
Coletto Creek Reservoir	71	35,060	30,940	88	-420	-1	7,420	21	
Medina Lake	72	254,000	188,400	74	8,100	3	-10,800	-4	
TOTAL		1,973,820	1,902,400	96	19,740	1	357,110	18	
UPPER COAST									
Lake Houston	73	128,860	128,860	100	0	0	22,460	17	
Lake Texana	74	157,900	157,700	100	600	0	44,500	28	
TOTAL		286,760	286,560	100	600	0	66,960	23	

CONSERVATION STORAGE DATA FOR SELECTED MAJOR TEXAS RESERVOIRS

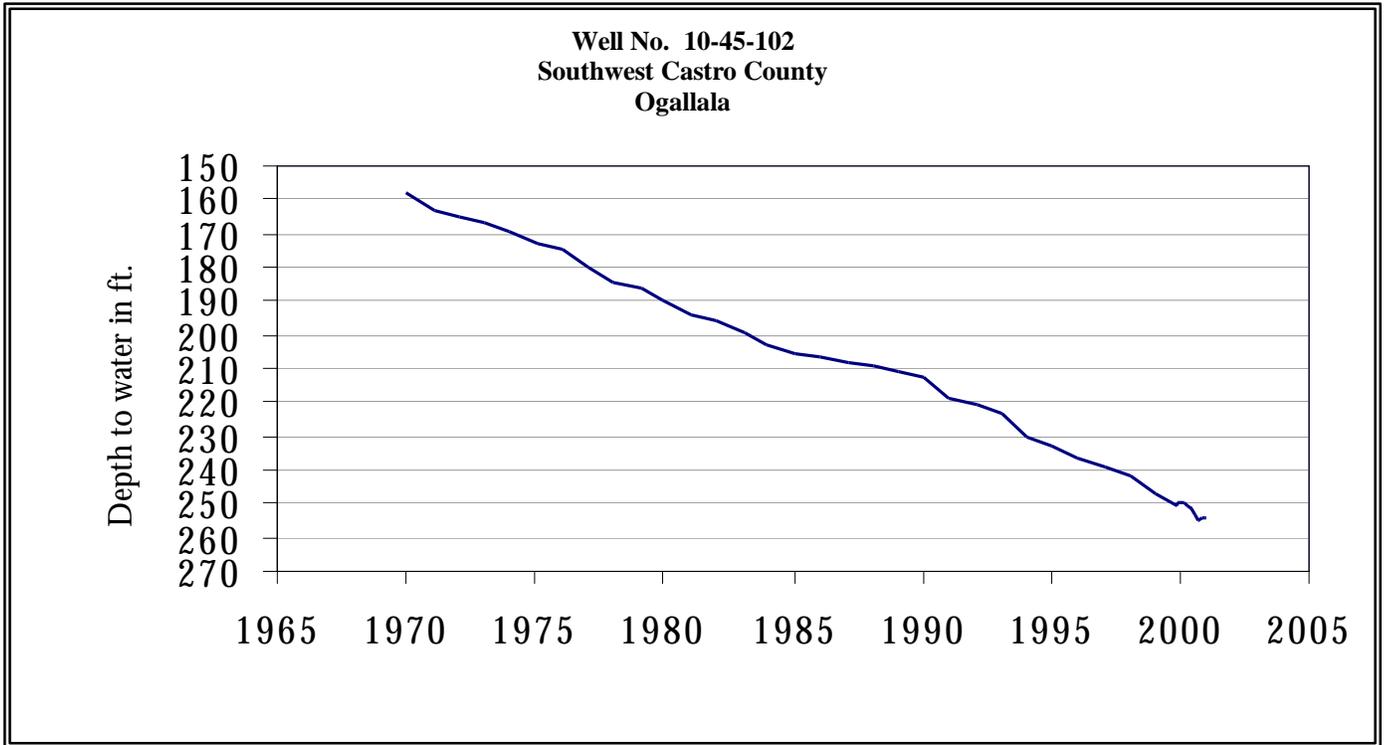
Name of Lake or Reservoir	No. on Map	Conservation Storage Capacity (acre-feet)	Conservation Storage Late December 2000 (acre-feet) (%)		Change since Late November 2000 (acre-feet) (%)		Change since Late December 1999 (acre-feet) (%)	
SOUTHERN								
Choke Canyon Reservoir	75	695,260	270,000	39	-3,000	0	-27,000	-4
Lake Corpus Christi	76	241,240	100,400	42	5,900	2	-49,300	-20
Falcon Reservoir (Texas)	77	1,555,120	302,000	19	10,000	1	-16,000	-1
Falcon Reservoir (Texas and Mexico)	(77)	2,653,290	343,000	13	12,000	0	-293,000	-11
TOTAL		2,491,620	672,400	27	12,900	1	-92,300	-4
STATE TOTAL		34,470,430	27,519,880	80	797,230	2	3,019,294	9

Note:

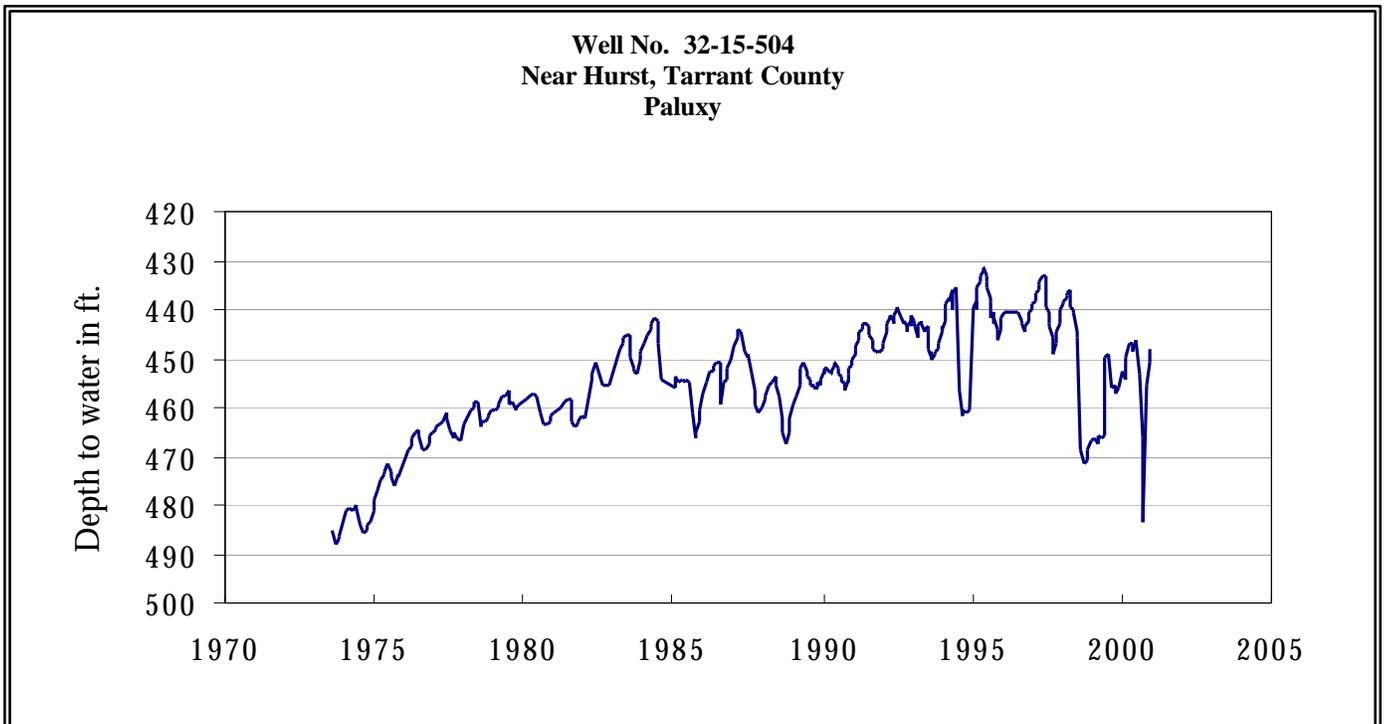
Conservation storage capacity is the space available to store water above the level of invert of lowest outlet works and below the level of top of conservation pool or normal maximum operating level. Conservation storage refers to the volume of water held within the conservation storage space. Not included is any water in flood control storage (above the top of conservation pool or normal maximum operating level), or any water in so called dead storage (in the bottom of the reservoir, below the invert of lowest outlet works and consequently not removable by gravity flow alone.) Percentage of conservation storage is based on the conservation storage capacity of the reservoir and the conservation storage in the reservoir for date shown. Percent change is given by % Change = 100 * (current conservation storage - past conservation storage)/conservation storage capacity.

Current data are based on elevations near end of month at 77 reservoirs that together represent 98 percent of the total conservation storage capacity of major Texas reservoirs (those with capacity of 5,000 acre-feet or more each). Figures in parentheses for Lake Meredith represent the total conservation storage excluding 58,014 acre-feet of dead storage and are not included in State total. Preliminary figures are shown for the United States' share of conservation storage in International Amistad and International Falcon Reservoirs; the estimates may be subject to revision on completion of international water accounting. Texas (United States' share) and Mexico and are not included in State total.

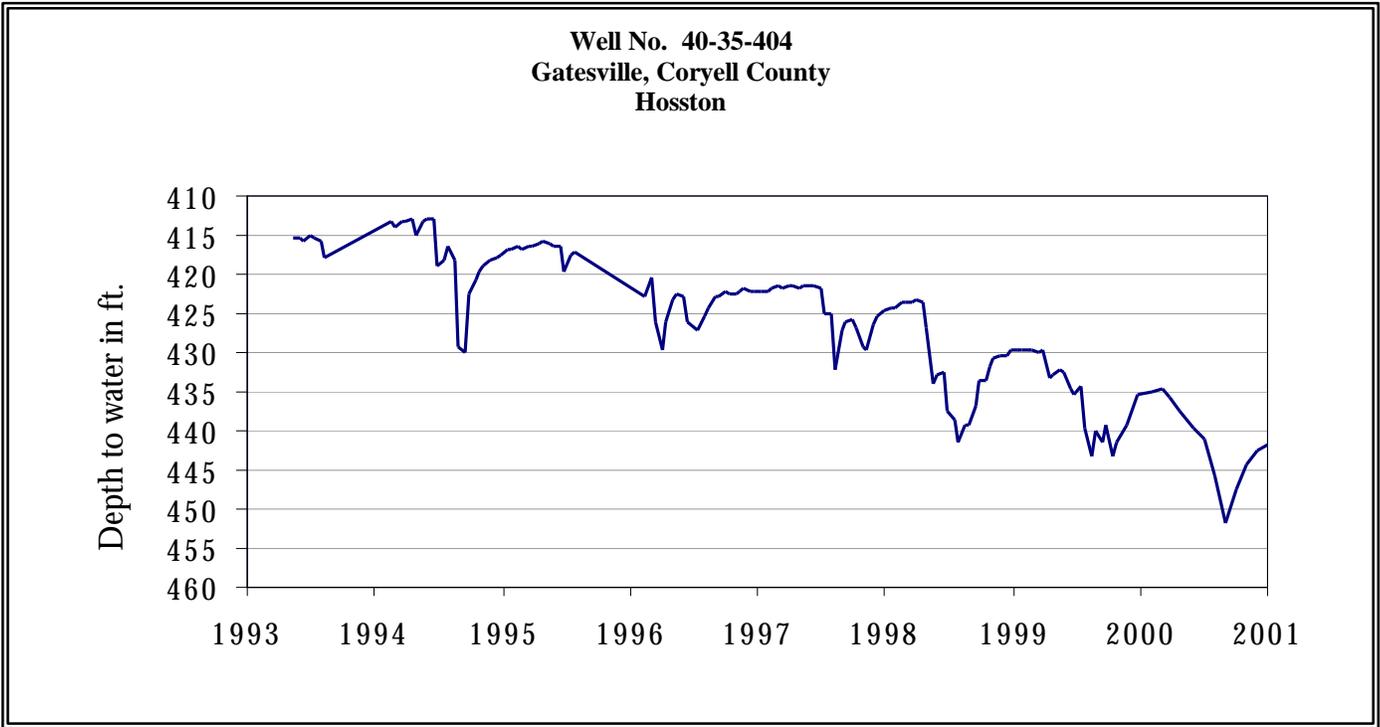
DECEMBER GROUND WATER LEVELS IN OBSERVATION WELLS



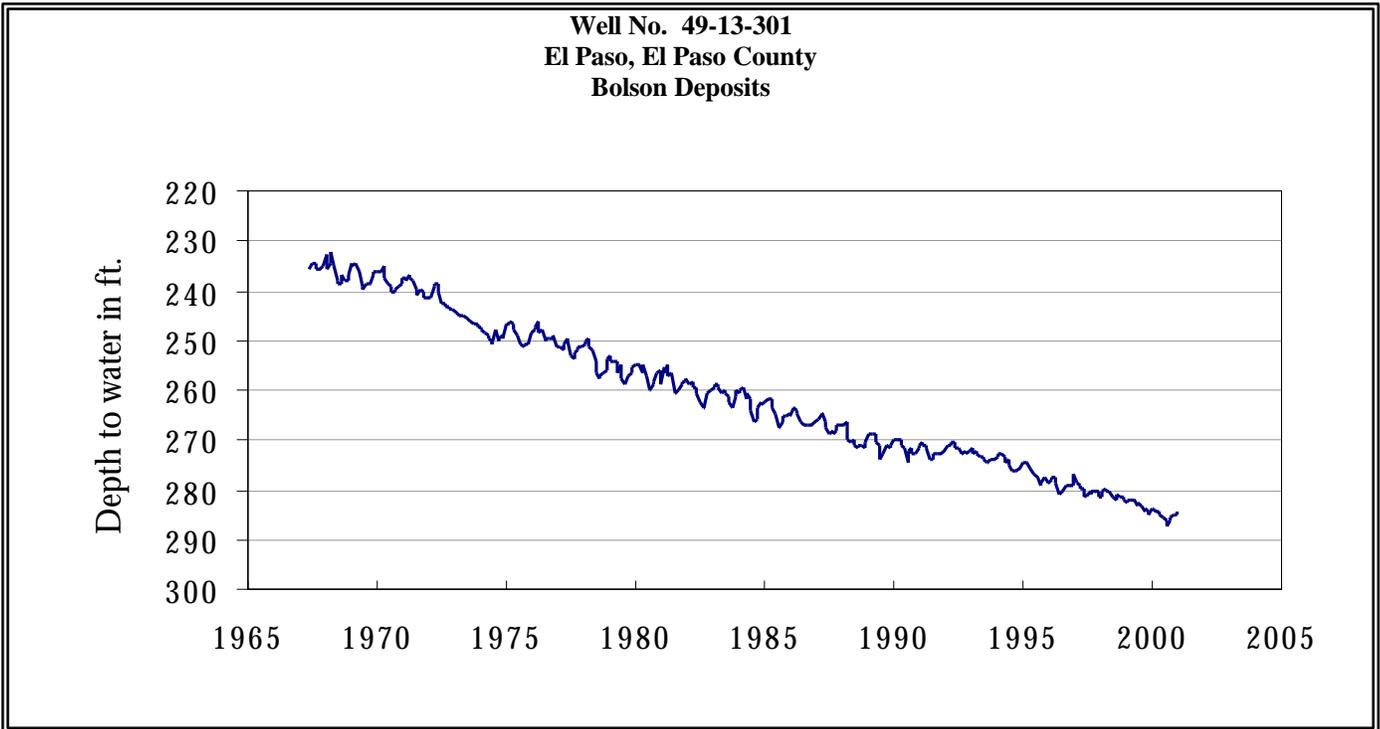
The late December water-level measurement in this Ogallala aquifer well, elevation 3,816 feet above sea level, was 253.69 feet below land surface. This measurement was 0.26 feet above last month's measurement, 3.94 feet below last year's measurement, and 97.69 feet below the initial measurement recorded in 1968.



The late December water-level measurement in this Paluxy Formation Trinity aquifer well, elevation 535 feet above sea level, was 448.24 feet below land surface. This measurement was 2.88 feet above last month's measurement, 4.18 feet above last year's measurement, and 54.85 feet below the initial measurement recorded in 1953.

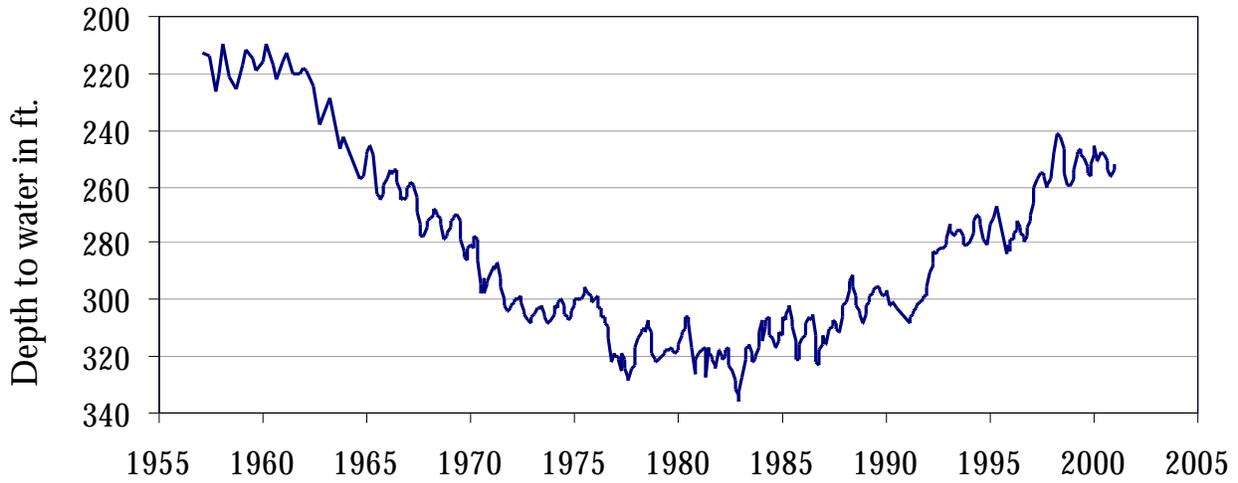


The late December water-level measurement in this Hosston Formation Trinity aquifer well, elevation 823 feet above sea level, was 441.89 feet below land surface. This measurement was 0.66 feet above last month's measurement, 6.68 feet below last year's measurement, and 149.89 feet below the initial measurement recorded in 1955.



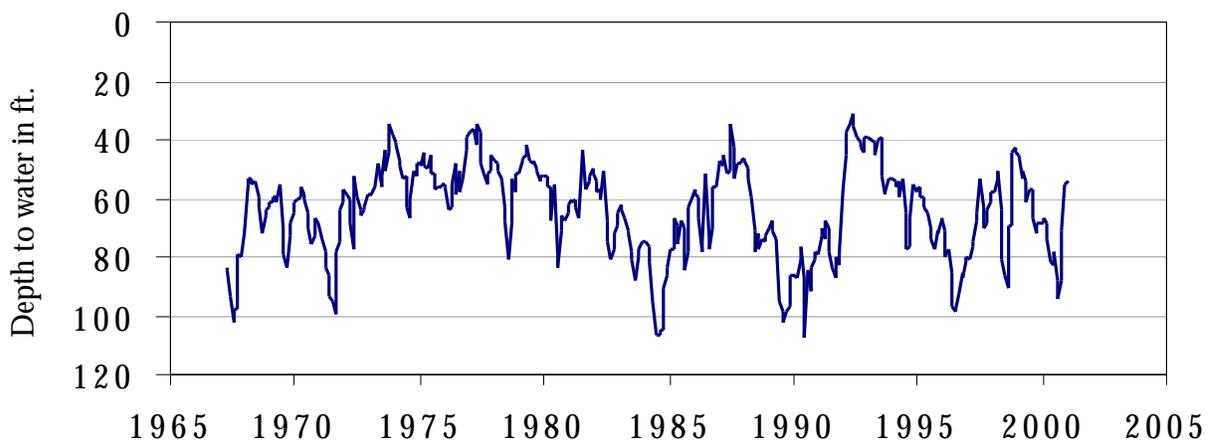
The late December water-level measurement in this Hueco Bolson aquifer well, elevation 3,882 feet above sea level, was 284.55 feet below land surface. This was 0.27 feet above last month's measurement, 0.60 feet below last year's measurement, and 52.65 feet below the initial measurement recorded in 1964.

**Well No. 65-14-409
Alief, Harris County
Evangeline**



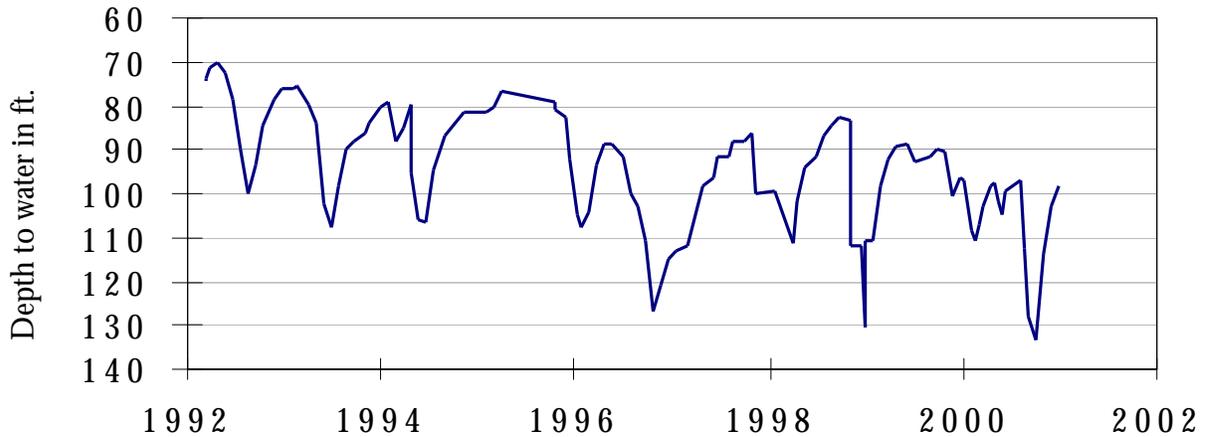
The late December water-level measurement in this Evangeline Formation Gulf Coast aquifer well, elevation 66 feet above sea level, was 252.39 feet below land surface. This was 1.49 feet above last month's measurement, 3.90 feet below last year's measurement, and 149.16 feet below the initial measurement recorded in 1947.

**Well No. 68-37-203 (J-17)
In San Antonio, Bexar County
Edwards and Associated Limestones**



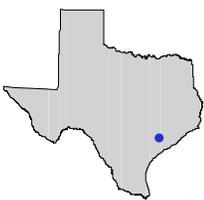
The late December water-level measurement in this Edwards (BFZ) aquifer well, elevation 731 feet above sea level, was 54.22 feet below land surface. This was 0.54 feet above last month's measurement, 14.09 feet above last year's measurement, and 5.40 feet above the initial measurement recorded in 1962.

**Well No. 68-60-912
Between Poteet and Pleasanton, Atascosa County
Carrizo**



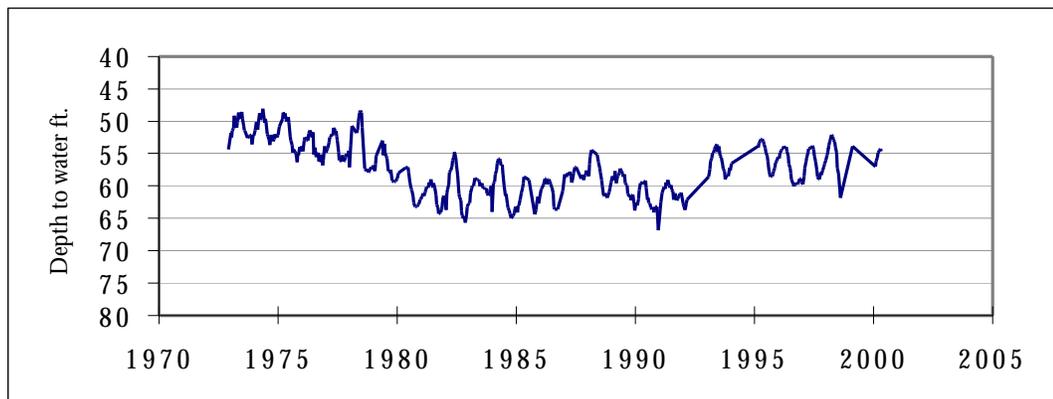
The late December water-level measurement in this Carrizo aquifer well, elevation 446 feet above sea level, was 97.97 feet below land surface. This measurement was 4.78 feet above last month's measurement, 5.12 feet above last year's measurement, and 16.72 feet below the initial measurement recorded in 1965.

HYDROGRAPH OF THE MONTH



Each month this space features a new hydrograph (marked with the • symbol on the map) depicting different aquifers and different conditions in Texas.

**Well No 8017502
Victoria County**



This unused recorder well, located 4 miles northwest of Bloomington at an elevation of 68 feet above sea level, was completed in the Lissie Fm. & Goliad sand aquifer. The water levels reflect annual pumpage rates, with maximum usage during the 1980's through the early 1990's.